

## ABSTRACT

A process for producing 2,4'-dihydroxydiphenylsulfone which comprises separating 4,4'-dihydroxydiphenylsulfone by crystallization from a mixture containing 4,4'-dihydroxydiphenylsulfone, 2,4'-dihydroxydiphenylsulfone, phenolsulfonic acid and phenol which is obtained by dehydration of phenol and sulfuric acid or phenolsulfonic acid to obtain a mixture having a content of 2,4'-dihydroxydiphenylsulfone greater than the content of 4,4'-dihydroxydiphenylsulfone, crystallizing 2,4'-dihydroxydiphenylsulfone by adjusting the composition of the solvent of the obtained mixture so that the ratio of the amounts by weight of phenol to water is 10:90 to 90:10, and separating 2,4'-dihydroxydiphenylsulfone by filtration; and a process as described above in which the filtrate obtained by the filtration is used as the raw material for the hydration.